Boston University Questrom School of Business
Department of Finance

Rafik B. Hariri Building
595 Commonwealth Avenue
Boston, Massachusetts 02215

BOSTON UNIVERSITY

March 13, 2017

Via e-mail: rule-comments@sec.gov

Brent Fields, Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Re: Comments on File No. SR-NYSE Arca-2017-06

(Release No.34-79955)

Mr. Secretary,

I am writing to provide comment regarding SR-NYSE Arca-2017-06. As background, I have taught finance, capital markets and risk management at Boston University for the past 14 years. Prior to that I was a senior executive on a commodity-trading floor as well as a Federal Reserve Bank examiner. In January 2014, I was asked to provide testimony before the New York State Department of Financial Services hearing on virtual currencies; in April 2014 Congressional Testimony on bitcoin; and in October 2014 at The World Bank (see attached Links). Testimony - Mark T. Williams, January 29, 2014 - New York State ... Testimony of Mark T. Williams1 Banking Specialist, Commodities and Top 10 Bitcoin Risks from Mark Williams at World Bank Conference ...

Summary

The Bitcoin Investment Trust (Trust) filing should not receive SEC approval as it is similar to the Winklevoss Bitcoin Trust that was denied on March 10, 2017. Approving this latest bitcoin ETF filing would put investors at undue risk and create a stamp of approval on an unproven and risky asset class that is yet to be fully market tested. Moreover, Digital Currency Group (DCG), the multi-business holding company that controls the Trust, is fraught with inherent conflicts of interest.

Market Flaws

As expressed in a my November 15, 2016 comment letter regarding the Winklevoss Bitcoin Trust, there are several market flaws that make bitcoin a dangerous asset class to attempt to force into an ETF structure.[1] These flaws include poor price discovery, irregular trade execution, shallow trade volume, hoarding, relatively low liquidity, hyper-price volatility, a global web of unregulated bucket-shop exchanges, high bankruptcy risk and oversized exposure to trading and price discovery in countries outside the jurisdiction of the SEC, including China and Japan where there is emerging and sometimes unclear regulatory oversight. Other risks include lack of consumer protection and regulation that increase the chance and incentives for market price manipulation.

Bitcoin price discovery and trade execution is irregular and dependent on a web of unregulated cryptocurrency exchanges stretching from China (OKCoin), Singapore (Quoine), and Hong Kong (BitFinex) to Bulgaria (BTCe). Over 90 percent of trading is conducted on non-U.S. exchanges with over 70 percent of mining done in China.[23] After a recent investigation, Peoples Bank of China (PBOC) announced that cryptocurrency trading platforms can no longer call themselves exchanges.[4] These platforms were also required to charge mandatory fees, causing trading volume to fall. Total market trade volume is shallow with over 90 percent of bitcoin hoarded and only about 1 percent of bitcoin traded daily. It is also estimated that over 8 percent of bitcoin have been lost to events such as forgotten passcodes or corrupted hard drives and are permanently out of circulation, further reducing the level of market liquidity.[5]

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[1] November 15, 2016 SR-Bats BZX-2016-30

[2] Bitcoin Is Melting Down as China Cracks Down on Capital Outflows ...

[3] The four major exchanges in China have accounted for about 90 percent of trading volume. Much of this trading is also associated with round-trip transactions that help to artificially boost trading volume and perceived market share ranking.

[4] https://news.bitcoin.com/chinese-central-bank-director-bitcoin-trading-platforms-cannot-call-themselves-exchanges/

[5] The £625m lost forever - the phenomenon of disappearing Bitcoins ...

Historically, in many asset classes, shallow trading volumes and less market liquidity provide greater economic incentive for price manipulation, including pump-and-dump type schemes.

Self Regulation Isn't Working

Lack of regulation and consumer protection laws have created a low barrier to entry that has allowed bad actors to set up shop. Basic financial and operational controls typical of U.S. trading markets are nonexistent with price discovery, execution and fees varying by exchange. Many exchanges charge zero fees for trading but base compensation on deposits and withdrawals of fiat currencies.[6] Bitcoin exchanges are not connected as a protective system and operate independently.[7] Exchanges self-report trade volumes without any independent, regular audits. It is not uncommon for competing exchanges on the same day to post prices that diverge by $50 or more. Trade execution can take hours and in stressed markets investors can wait days for trade execution. Intraday bid-ask spread data can vary widely and some exchanges are unwilling to provide real-time information to investors. The pricing of virgin bitcoin, those that are mined and not purchased through exchanges, tend to sell at a premium, further distorting the fair market pricing process.[8]

Presently, the global web of bitcoin exchanges enjoy and exploit asymmetrical information advantages. Timely, accurate and transparent pricing information is seldom shared with investors. Other material nonpublic information -- such as large buy and sell orders, hacks and legal actions -- tip the scale to exchange operators and owners. Lack of market transparency increases the likelihood of fraud, price manipulation, favoritism, front running and other unfair order execution tactics. Such deep-seated market flaws are in direct conflict with attributes of well-functioning ETF markets where investors receive efficient price discover and fair-market execution, completed within moments.

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[6] Such fee arrangements are done to encourage round-trip trading that inflate exchange trade volume, generating the perception of larger market share.

[7] There is no mechanism in place for exchanges to provide alerts and work together to strengthen overall controls.

[8] Greater price reflects the perceived benefit of being less traceable and more desirable when used for nefarious purposes.

Hyper-Price Volatility Risk

In an unregulated bitcoin market, price volatility is over 2.5 times that of the U.S. dollar with annual rates exceeding 50 percent. The Trust filing also glosses over bitcoin volatility risk and fails to acknowledge the extreme daily and hourly price exposure unique to bitcoin. On a daily basis it is not uncommon to see price swings of 10 percent or more. On March 10, 2017, intraday swing topped 18 percent with price falling over $200. Hourly price swings can also be dramatic. In early 2016, bitcoin price moved by more than 10 percent in a single hour. This is relevant for an ETF structure as hyper intraday price volatility increases the difficulty of ensuring investors receive fair trade execution and an accurate daily net asset value (NAV). In the current bitcoin market, an ETF NAV could quickly become stale compared to real-time price movements. Moreover, given that the majority of bitcoin trading is carried out in multiple time zones outside of the U.S., executing a clean NAV at even a defined cutoff time becomes challenging.

Many investors and speculators hold their coins in digital wallets managed by exchanges. This creates additional investor risk, as trading is not separated from the custody function. Exchanges playing this dual role -- broker and banker – are more vulnerable to cyberattacks and internal fraud. In February 2014, Mt.Gox, declared bankruptcy after being hacked, claiming weak systems were the culprit.[9] Customers lost over $400 million. Previously, this exchange accounted for 80 percent of total trading volume. Three years later the Mt. Gox bankruptcy proceeding continues. In August 2016, Hong Kong based BitFinex was hacked and investors lost over $60 million. This theft remains unresolved.

Significant Credit Default Risk

Credit default risk among bitcoin exchanges remains high. Barriers to entry to become a non-U.S. bitcoin exchange is relatively low and there are no mandated capital requirements. Since bitcoin inception in 2009, more than half of all exchanges have defaulted, creating investor losses and causing broader market price shocks. Unlike the

[9] Mt.Gox coins also traded at less than market reflecting the perceived solvency risk.

banking market where depositors and investors can gain timely access to public filing of financial solvency, there is no similar reporting provided by bitcoin exchanges, elevating customer risk.

The counterparties listed as part of the index basket for this proposed ETF are opaque and most of these participants reside outside the jurisdiction of the SEC and could attempt to manipulate price. Many of these participants are also not subject to Know Your Customer or Anti Money Laundering documentation requirements, increasing the ability of unknown individuals or entities to use trade-volume tactics to potential unduly influence bitcoin index price.

Digital Currency Group's Inherent Conflict of Interest

Regardless of market infrastructure flaws that currently make bitcoin an unstable and dangerous asset class to put into an ETF structure, Digital Currency Group (DCG), the holding company of the applicant, has an inherent conflict of interest that should disqualify it from gaining SEC approval. The Trust is sponsored by Grayscale Investments, LLC, (Grayscale) a wholly-owned subsidiary of DCG. Digital Currency Group has interests in about 80 bitcoin related businesses, potentially placing them in direct conflict with the fiduciary duty of running an ETF for the sole benefit of investors.

DCG investments include ownership in such companies as Genesis trading, a bitcoin brokerage firm, Grayscale Investments, a cryptocurrency asset management firm, the Trust, which manages a publically traded bitcoin investment vehicle (and if SEC approved, will convert to an ETF), Tradeblock, a pricing data company, and CoinDesk, a closely watched media company that reports on bitcoin.[10]

1. Genesis -- the brokerage firm maximizes profit through charging investors fees and collecting the differential between the bid-ask spread -- the larger the spread, the greater the profit. Its actions also influence market price discovery.

[10] Bitcoin Investment Trust currently trades under the symbol GBTC.

2. Grayscale -- is a cryptocurrency investment company where profits are made through trading. It trades on its own behalf and investors are not clients but counterparties.
3. Trust – manages an investment fund on behalf of investors. Determining where trade flow is directed, amount of fees charged and which customer orders are filled first, creates the opportunity for greater profits.
4. Tradeblock – Provides important bitcoin pricing data. This daily pricing service is used by Trust for portfolio purposes and to meet investor obligations.
5. CoinDesk - is a media outlet, a market influencer that exclusively covers bitcoin and related news. It has earned the reputation as one of the industry's biggest megaphones. On a daily basis, CoinDesk covers many of DCG affiliated companies and provides them with additional market exposure. In a newly evolving market with shallow trade volume and hyper-intraday volatility, positive spin stories can create market buzz, quickly translating into greater trade volume and price appreciation. If such actions were taken, they could materially benefit DCG portfolio holdings in areas such as bitcoin brokerage and investment management.

Need for Industry Regulation

In the bitcoin market, self-regulation has failed as measured by the size of investor losses caused by cyberattacks, internal fraud and lack of standardized controls and consumer protections.[11] The Trust has also demonstrated a previous lack of compliance to stated SEC regulations.[12]

As the market matures and strong investor protections are put in place, there will be broader demand for cryptocurrency derivative instruments including ETFs. However, premature adoption of this Trust ETF structure before adequate protections are in place would only undermine the long-term prospects of cryptocurrency and promising

[11] Estimated investor losses since 2014 exceed $600 million.
[12] On July 11, 2016, the SEC announced a settlement and fine of Bitcoin Investment Trust that resulted in a Cease and Desist order for not abiding by proper SEC redemption policies violating Regulation M.

blockchain innovations.

The challenge is determining what is the right level of regulation, on a national and global basis, that adequately protects investors and consumers while not unduly stifling industry innovation. More focus has to be placed on needed protections to stabilize and add basic controls over the bitcoin infrastructure before such an ETF structure will be investor safe and ready for public consumption.

Thanks again for the opportunity to comment.

Sincerely,

Mark T. Williams